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PATENT COOPERATION TREATY

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Applicant's or agent's file reference 2003DE109	IMPORTANT NOTHFICATION
International application No PCT/EP2004/003380	International tiling date (day/annath/visor) 31 March 2004 (31.03.2004)
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Authorized officer

Yolaine Cussac

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PATENT COOPERATION TREATY

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agon's file reference 2003DE109	FOR FURTHER ACTION	See nem 4 betow	
International application No. PCT/EP2004/003380	International filing dose (day/month/wor) 31 March 2004 (31 03.2004)	Priority date (day/month/vest) 10 April 2003 (10,04 2003)	
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Applicant CLARIANT GMBH			

ι.	This international preliminary International Searching Author	report on palemobility (Chapter 1) is issued by the International Bureau on behalf of the ity under Role 44 <i>bis.</i> Ita)
2	In the attached sheets, any refe	al of X sheers, including this cover sheet. conce to the written opinion of the International Searching Authority should be read as a reference report on patentability (Chapter 1) instead.
3.	This report contains indication	s relating to the following items:
	Box No. I	Busis of the report
	BOX NO. B	Priority
	Bux No III	Non-establishment of opinion with regard to anvally, inventive step and industrial applicability
	Box No. IV	Lack of unity of invention
	Aux No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
	Box No. VI	Contain documents cited
	Hos No. VII	Cornin defects in the international application
	Bux No VIII	Certain observations on the international application
ત.	The International Boreau will talk except where the applicated (Rule 44th), 2).	communicate this report to designated Offices in accordance with Rules 44his 3(c) and 93hir 1 but a number of an appress request under Article 23(2), before the explinition of 30 months from the priority

Date of issuance of this report 02 March 2006 (02.03 2006) Vallentyer officer The International Bureau of WIPO 34. chemin des Colombeues [21] Geneva 20, Switzerland Yolaine Cussac Telephone No. 441 22 338 70 80 Pacsimile No +41 22 740 14 35

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Claulous and explanations:

- V.1 The present invention describes are dyes containing mothanesulfonamide groups and their use in recording fluids, in particular for the ink jet process.
- V.2 The following documents are cited:

D1: US-A-6 127 531

D2: US 2001/027730 A1

D3: US-B-6 635 7471 (PATEL PRAKASH ET AL) 21 October 2003 (2003 10-21)

133 was published after the filing date and therefore is not considered as prior art.

v.3 Novelty

D1 describes phenyl-azo-maphthalene dyes that differ from the azo dyes of the invention in that they do not contain a methanesultonamide group. The dyes are useful for printing ink (claims 1 and 9). D2 describes black trisaxo metal complex dyes that differ from the azo dyes of the invention in that the NSO CH, group is an SO, group and the phenyl

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group contains two azo bonds. The dyes are useful for printing ink (claims 8 and 10).

D3 describes phenyl azo-naphthalene dyes that differ from the azo dyes of the invention in that they do not contain a methanesulfonamide group and are substituted in the naphthalene ring by a triazine group. The dyes are useful for printing ink (examples and claim 8).

A compound according to formula 1 is not described in any document. Claims 1-4 therefore fulfill the requirements of PCT Article 33(2).

Claim 5 describes a process for preparing a compound according to formula 1 and thus is novel.

Claims 6 and 7 describe the use of a compound according to tormula 1 for dyeing and printing and thus are novel.

Claim 8 describes a recording fluid comprising a compound according to claim 1 and thus is novel.

Claim 9 describes the use of a recording fluid according to claim 8 and thus is novel.

V.4 Inventive step

The problem addressed by the present invention can be considered that of providing novel and possibly improved azo dyes that are ecologically safe and feature high solubility in water and/or organic

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solvents, good ozone and light fastnesses, high color strength and brilliance. The applicant demonstrates that the dyes of this invention have these properties in the examples. The dyes have not been previously described in prior art nor are they derivable therefrom. The subject matter of this application therefore fulfills the requirements of PCT Article 33(3).

Remoned statement under Rule 45his itaki) with regard to novelty, inventive step or (adostrial applicability:

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